

**DEVELOPING OF LABWORK GUIDE BOOK BASED ON  
PEDAGOGICAL CHEMISTRY KNOWLEDGE (PChK)  
IN REPRESENTATION OF ACID BASE CONCEPT  
FOR STUDENTS**

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**Abstract**

This research was a detailed examination of the development of the chemistry education sources. The purposes of this development research were: (1) to develop a labwork guide book based on the Pedagogical Chemistry Knowledge (PChK) in representation of acid and base concept for senior high school students and (2) to evaluate the quality of this labworkguide book based on the assessments by chemistry teachers and grade XI students of senior high school.

The developing of this labwork guide book was guided by thesis supervisor and advised by media expert, material expert, peer reviewer, and chemistry teachers. The instrument used to evaluate the quality of this labwork guide book was a Likert ratingsheets which has 6 aspects of criteria with 50 indicators. The assessment done by 20chemistry teachers and 32 grade XI students of senior high school.

This research claimed that quality of this labwork guide book based on the Pedagogical Chemistry Knowledge (PChK) was very good. Mean score based on teachers assessment was 210,5 from maximum score 250 so the ideal percentage was 84.2%. Mean score based on students assessment was 206 from maximum score 250 so the ideal percentage was 82.4%. This labwork guide book was qualified to used as labwork guide book for learning at senior high school.

**Keywords:** labwork guide book, Pedagogical Chemistry Knowledge (PChK), representation